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909271

MEMORANDUM

DATE: March 4, 1998

TO: Dr. Melvin Ritter, ESAT RPO, Region VI

FROM: Dr. Tom C.H. Chiang, ESAT Team Manager, Region VI

SUBJECT: CLP Data Review

REF: TDF # 6-8169A, ESAT File # O-1886
ESAT Contract No. 68-D6-0005

Attached is the data review summary for Case # 25969
SDG # FFR76
Site DOYLE F J
TRANSFORMERS

COMMENTS:

I. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

A. The reviewer could not confirm two of three contractually non-compliant items mentioned in the CCS report but did confirm the following item.

> The laboratory extracted all Pest/PCB samples 15 days past the contractual holding time limit (OLM03.2, D-20/PEST, 8.4.1). The DDE result for sample FF-R87 and the AR1260 results for samples FF-R76DL, FF-R81, FF-R82, FF-R83DL, FF-R85, FF-R86, and FF-R87 were qualified.

B. The data package was 4 days late for the 35-day turnaround time requirement.

II. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

The total number of results reviewed was 1125 for this data package. Some results were qualified because of the following significant problems.

A. The technical holding time for extraction of Pest/PCB samples was excessive (27 days).

B. Coeluting aroclor peaks interfered with the detection and quantitation of several pesticides.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 25969
LABORATORY CLAYTN
CONTRACT# 68-D5-0005
SDG# FFR76
SOW# RAS OLM03.2

ACCT# 8FAXJN27 SF# FAXU1D

SITE DOYLE F J TRANSFORMERS
NO. OF SAMPLES 9
MATRIX soil
REVIEWER (IF NOT ESD) ESAT
REVIEWER'S NAME Mike Fertitta and Yue-Mei Liu
COMPLETION DATE March 4, 1998

SAMPLE NO.'s:

FF-R76	FF-R85	FF-R92		
FF-R81	FF-R86			
FF-R82	FF-R87			
FF-R83	FF-R91			

DATA ASSESSMENT SUMMARY

	VOA	BNA	PEST
1. HOLDING TIMES	O	O	M
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O
3. CALIBRATIONS	M	O	O
4. BLANKS	O	O	O
5. SMC/SURROGATES	O	O	O
6. MATRIX SPIKE/DUPLICATE	O	O	O
7. OTHER QC	O	O	O
8. INTERNAL STANDARDS	O	O	N/A
9. COMPOUND ID/QUANTITATION	O	O	M
10. PERFORMANCE/COMPLETENESS	O	O	O
11. OVERALL ASSESSMENT	M	O	M

O = Data had no problems.
M = Data qualified due to major or minor problems.
Z = Data unacceptable.
NA = Not applicable.

ACTION ITEMS: The extraction of the Pest/PCB samples exceeded the contractual holding time limit. The data package arrived four days late.

AREA OF CONCERN: Technical holding time was excessive for the extraction of Pest/PCB samples. Acetone failed the technical %RSD and %D calibration criteria. Aroclor peak interferences obscured the detection or interfered with the quantitation of pesticides in five samples.

NOTABLE PERFORMANCE:

COMMENTS/CLARIFICATIONS
REGION VI CLP QA REVIEW

CASE 25969 **SDG** FFR76 **SITE** DOYLE F J TRANSFORMERS **LAB** CLAYTN

The following is a summary of sample qualifiers used by Region 6 in reporting this CLP data:

No.	Acceptable	Provisional	Unacceptable
VOA	6	3	
BNA	9		
PEST	2	7	

COMMENTS: The case consisted of 9 soil samples for complete RAS organics analysis. The OTR/COC Record designated sample FF-R83 as the laboratory QC sample and samples FF-R81 and FF-R82 as field duplicates. The data package had the following contractually non-compliant items.

- Pest/PCB samples were extracted 15 days past the contractual holding time limit.
- The data package arrived 4 days late for the 35-day turnaround time.

VOA/BNA: The laboratory analyzed the samples following the low level methods. TCL analytes reported above the CRQL's included acetone, bis(2-ethylhexyl)phthalate, and several polyaromatic hydrocarbons (PAH's) in five samples. However, except for sample FF-R83, the acetone and bis(2-ethylhexyl)phthalate concentrations were due to laboratory contamination.

Pest/PCB: High concentrations of AR1260 (up to 85,000 µg/Kg) required 8X to 100X dilution for samples FF-R76, FF-R81, FF-R82, and FF-R83. AR1260 was also reported above the quantitation limits in samples FF-R85, FF-R86, and FF-R87, and DDE was reported above the CRQL in sample FF-R87. The laboratory analyzed samples FF-R85 and FF-R86 at 8X dilution, but the dilution appeared to be for no obvious reasons.

Some results are provisional for three VOA and seven Pest/PCB samples because of problems with holding time, calibrations, compound identification, and compound quantitation. The technical usability of all reported sample results is indicated by ESAT's final data qualifiers in the Data Summary Table. An Evidence Audit was conducted for the Complete Sample Delivery Group File (CSF), and the results were recorded in the Evidence Inventory Checklist.

NOTE: THE FOLLOWING REVIEW NARRATIVE ADDRESSES BOTH CONTRACTUAL ISSUES (BASED ON THE STATEMENT OF WORK) AND TECHNICAL ISSUES (BASED ON THE NATIONAL FUNCTIONAL GUIDELINES). THE ASSESSMENT MADE FOR EACH QC PARAMETER IS SOLELY BASED ON THE TECHNICAL DATA USABILITY, WHICH MAY NOT NECESSARILY BE AFFECTED BY CONTRACTUAL PROBLEMS. THE ASSESSMENTS ARE DEFINED BELOW.

CASE 25969 **SDG** FFR76 **SITE** DOYLE F J TRANSFORMERS **LAB** CLAYTN

Acceptable = No results were qualified for any problem associated with this QC parameter.
Provisional = Some results were qualified because of problems associated with this QC parameter.
Unusable = All results are unusable because of major problems associated with this QC parameter.

1. **Holding Times:** Provisional. The laboratory met contractual holding time criteria for all VOA and BNA samples but extracted all of the Pest/PCB samples 15 days past the contractual holding time limit. Technical holding times have not yet been established for soil samples. However, per Region 6 guidelines, the reviewer qualified as estimated the DDE result for Pest/PCB sample FF-R87 and the AR1260 results for Pest/PCB samples FF-R76DL, FF-R81, FF-R82, FF-R83DL, FF-R85, FF-R86, and FF-R87 because the technical holding time of the samples was 27 days. The other Pest/PCB sample results did not have analyte concentrations above the quantitation limits or were flagged "U" because of interferences, so qualification of those results was not required.

The laboratory received all samples at slightly elevated cooler temperatures (6.8°C and 7.2°C). In the reviewer's opinion, the cooler temperatures had no effect on the sample results.

2. **Tuning/Performance:** Acceptable. The BFB and DFTPP analyses met GC/MS tuning criteria for the VOA and BNA fractions. Endosulfan I and α-chlordane coeluted on column DB-5MS while their retention time windows overlapped on column DB-608. The reviewer verified that these problems did not affect the identification of Pest/PCB target analytes above CRQL levels in the samples.

3. **Calibrations:** Provisional. Target analytes generally met contractual calibration criteria. The reviewer qualified the acetone concentrations as estimated in the following VOA samples because of the technical %RSD and %D deficiencies: FF-R76, FF-R81, and FF-R82. Methoxychlor and γ-BHC failed technical %RSD calibration criteria on one column, but the analytes were not detected above the quantitation limits in the Pest/PCB samples.

4. **Blanks:** Acceptable. All method, storage, and instrument blanks met contractual QC guidelines. The Pest/PCB blanks were free of contamination. The method and storage blanks for VOA and BNA analyses contained bromomethane, methylene chloride, acetone, carbon disulfide, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, and bis(2-ethylhexyl)phthalate below the contractual upper limits. Bromomethane, 4-methyl-2-pentanone, 2-hexanone, and 1,1,2,2-tetrachloroethane were not

4. Blanks (continued): detected in any samples. The storage blank contamination was most likely introduced during the analysis rather than storage.

The reviewer qualified the bis(2-ethylhexyl)phthalate concentration in sample FF-R83 with a "B" flag to indicate a high bias resulting from laboratory contamination. All other sample results "B"-flagged by the laboratory should be considered as undetected (U) because the sample concentrations were less than 5X/10X the associated blank concentrations.

5. System Monitoring Compounds (SMC's)/Surrogates: Acceptable. All SMC and most surrogate recoveries were within the QC limits. Matrix interferences and/or dilution caused outlying surrogate recoveries for several Pest/PCB samples. Result qualification is unnecessary. The reviewer verified that target analyte results were not affected by matrix interferences except for aroclor interferences which are discussed in Section 9 below.

6. Matrix Spike/Matrix Spike Duplicate: Acceptable. MS/MSD results met QC criteria for percent recovery and precision with a few exceptions for the BNA and Pest/PCB fractions. MS/MSD recoveries were high for 2,4-dinitrotoluene and dieldrin. Since these analytes were not detected in the unspiked BNA or Pest/PCB samples, sample result qualification was not necessary.

Coeluting aroclor interferences caused outlying MS/MSD results for the Pest/PCB fraction. AR1260 peaks were reported as endrin at such high concentrations in the native and spiked Pest/PCB samples that spiked concentrations of endrin were masked, causing zero or negative MS/MSD recoveries for that analyte. Zero percent MS/MSD recoveries were reported for DDT because AR1260 peaks obscured its detection. The reviewer addresses the effect of coeluting aroclor interferences on the detection of endrin and DDT together with other pesticides facing similar interferences in Section 9 of this report.

7. Other QC:

Field Duplicates: Acceptable. Field duplicate results were generally consistent.

8. Internal Standards (IS): Acceptable. The internal standard areas and retention times were within the QC limits for all of the VOA and BNA analyses.

9. Compound Identity (ID)/Quantitation: Provisional.

VOA/BNA: The TCL analytes reported above the CRQL included acetone in samples FF-R76, FF-R81, and FF-R82, and several PAH's

9. Compound ID/Quantitation (continued): and/or bis(2-ethylhexyl)phthalate in samples FF-R81, FF-R83, and FF-R85. Except for BNA sample FF-R83, the acetone and bis(2-ethylhexyl)-phthalate concentrations reported were due to laboratory contamination. All reported results met the compound identification and quantitation criteria.

Pest/PCB: High concentrations of AR1260 (up to 85,000 µg/Kg) required 8X to 100X dilution for samples FF-R76, FF-R81, FF-R82, and FF-R83. Analyses of both the 10X and 100X dilution were submitted for samples FF-R76 and FF-R83. The reviewer recommends using quantitation limits from the less diluted analysis for both samples except for those analytes whose detection was obscured by significant aroclor interferences. The results recommended for use are designated in the Data Summary Table. AR1260 was also reported above the quantitation limits in samples FF-R85, FF-R86, and FF-R87, and DDE was reported above the CRQL in sample FF-R87. The laboratory analyzed samples FF-R85 and FF-R86 at 8X dilution, but the reason for the dilution was unclear.

The presence of AR1260 was confirmed by GC/MS analysis for samples FF-R76, FF-R81, FF-R82, and FF-R83. Two pesticide results, endosulfan I in sample FF-R76 and DDE in sample FF-R86, had concentrations exceeding the CRQL's specified in the SOW, but dilution caused the concentrations to fall below the elevated sample quantitation limits.

AR1260 peaks interfered with the detection and identification of some pesticides on one or both columns. These interferences resulted in the sample result qualifications addressed below.

- The following analyte concentrations reported by the laboratory should be considered as raised quantitation limits ("U"):

  endrin and endrin ketone in samples FF-R76DL, FF-R81, FF-R82, and FF-R87;

  γ-chlordane in sample FF-R76;

  endrin and γ-chlordane in sample FF-R83; and

  endrin ketone in sample FF-R83DL.

- The following concentrations reported below the quantitation limits (QL) were raised to the QL's and flagged "U":

  endosulfan II, methoxychlor, and γ-chlordane in sample FF-R81;

9. Compound ID/Quantitation (continued):

dieldrin, endosulfan II, and γ-chlordane in sample FF-R82;

endosulfan II in sample FF-R83DL;

dieldrin, endrin, endrin ketone, methoxychlor, and γ-chlordane in sample FF-R85;

endrin, endrin ketone, and γ-chlordane in sample FF-R86;

dieldrin in sample FF-R87; and

endrin in sample FF-R92.

- The quantitation limits reported by the laboratory for DDT were qualified as estimated and biased low for samples FF-R76DL, FF-R81, FF-R82, FF-R83DL, and FF-R87.

The reviewer qualified as estimated and biased low the raised endrin ketone quantitation limits for samples FF-R76DL and FF-R83DL because of improper peak integration.

10. Performance/Completeness: Acceptable. The data package was complete with minor deficiencies. The laboratory was contacted concerning minor problems (see the Telephone and FAX Record Logs). A FAX (pages 1040A and 1040B) submitted in response to the telephone request was placed at the beginning of the data package. The original pages 1040A and 1040B are expected with the response to the final resubmission request and will replace the FAX pages when the resubmission is received.

11. Overall Assessment: Data are acceptable for six VOA, all BNA, and two Pest/PCB samples.

VOA The acetone results for the following samples are provisional because of problems with calibrations: FF-R76, FF-R81, and FF-R82.

PEST Some results are provisional for samples FF-R76/DL, FF-R81, FF-R82, FF-R83/DL, FF-R85, FF-R86, and FF-R87 because of problems with holding time, compound identification, and/or compound quantitation.

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

U Not detected at reported quantitation limit.

N Identification is tentative.

J Estimated value.

R Unusable.

^ High biased. Actual concentration may be lower than the concentration reported.

v Low biased. Actual concentration may be higher than the concentration reported.

F+ A false positive exists.

F- A false negative exists.

B This result may be high biased because of laboratory/field contamination. The reported concentration is above 5X or 10X the concentration reported in the method/field blank.

UJ Estimated quantitation limit.

T Identification is questionable because of absence of other commonly coexisting pesticides.

* Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

VOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R76	FF-R81	FF-R82	FF-R83	FF-R85	FF-R86	FF-R87
Chloromethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Bromomethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Vinyl chloride	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Chloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Methylene chloride	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Acetone	74 UJ	86 UJ	82 UJ	13 U	14 U	15 U	15 U
Carbon disulfide	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,1-Dichloroethene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,1-Dichloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,2-Dichloroethene (total)	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Chloroform	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,2-Dichloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
2-Butanone	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,1,1-Trichloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Carbon tetrachloride	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Bromodichloromethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,2-Dichloropropane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
cis-1,3-Dichloropropene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Trichloroethene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Dibromochloromethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,1,2-Trichloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Benzene	12 U	16 U	16 J	13 U	14 U	15 U	15 U
trans-1,3-Dichloropropene	12 U	16 U	16 J	13 U	14 U	15 U	15 U
Bromoform	12 U	16 U	16 U	13 U	14 U	15 U	15 U
4-Methyl-2-pentanone	12 U	16 U	16 U	13 U	14 U	15 U	15 U
2-Hexanone	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Tetrachloroethene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
1,1,2,2-Tetrachloroethane	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Toluene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Chlorobenzene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Ethylbenzene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Styrene	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Xylenes (total)	12 U	16 U	16 U	13 U	14 U	15 U	15 U
Sample wt (g):	5.0	5.0	5.0	5.0	5.0	5.0	5.0
%Moisture:	17	37	38	25	30	33	32
Dilution Factor:	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Level:	Low	Low	Low	Low	Low	Low	Low
Number of TIC's:	5	4	4	3	4	4	2

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

VOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER:	FF-R91		FF-R92									
Chloromethane	14 U		15 U									
Bromomethane	14 U		15 U									
Vinyl chloride	14 U		15 U									
Chloroethane	14 U		15 U									
Methylene chloride	14 U		15 U									
Acetone	14 U		15 U									
Carbon disulfide	14 U		15 U									
1,1-Dichloroethene	14 U		15 U									
1,1-Dichloroethane	14 U		15 U									
1,2-Dichloroethene (total)	14 U		15 U									
Chloroform	14 U		15 U									
1,2-Dichloroethane	14 U		15 U									
2-Butanone	14 U		15 U									
1,1,1-Trichloroethane	14 U		15 U									
Carbon tetrachloride	14 U		15 U									
Bromodichloromethane	14 U		15 U									
1,2-Dichloropropane	14 U		15 U									
cis-1,3-Dichloropropene	14 U		15 U									
Trichloroethene	14 U		15 U									
Dibromochloromethane	14 U		15 U									
1,1,2-Trichloroethane	14 U		15 U									
Benzene	14 U		15 U									
trans-1,3-Dichloropropene	14 U		15 U									
Bromoform	14 U		15 U									
4-Methyl-2-pentanone	14 U		15 U									
2-Hexanone	14 U		15 U									
Tetrachloroethene	14 U		15 U									
1,1,2,2-Tetrachloroethane	14 U		15 U									
Toluene	14 U		15 U									
Chlorobenzene	14 U		15 U									
Ethylbenzene	14 U		15 U									
Styrene	14 U		15 U									
Xylenes (total)	14 U		15 U									
Sample wt (g):	5.0		5.0									
%Moisture:	26		34									
Dilution Factor:	1.0		1.0									
Level:	Low		Low									
Number of TIC's:	4		3									

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R76	FF-R81	FF-R82	FF-R83	FF-R85	FF-R86	FF-R87
Phenol	390 U	31 J	49 J	46 J	27 J	78 J	500 U
bis(2-Chloroethyl)ether	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2-Chlorophenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
1,3-Dichlorobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
1,4-Dichlorobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
1,2-Dichlorobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2-Methylphenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,2'-Oxybis(1-chloropropane)	390 U	520 U	510 U	520 U	490 U	550 U	500 U
4-Methylphenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
N-Nitroso-di-n-propylamine	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Hexachloroethane	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Nitrobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Isophorone	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2-Nitrophenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,4-Dimethylphenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
bis(2-Chloroethoxy)methane	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,4-Dichlorophenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
1,2,4-Trichlorobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Naphthalene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
4-Chloroaniline	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Hexachlorobutadiene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
4-Chloro-3-methylphenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2-Methylnaphthalene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Hexachlorocyclopentadiene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,4,6-Trichlorophenol	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,4,5-Trichlorophenol	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
2-Chloronaphthalene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2-Nitroaniline	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
Dimethylphthalate	390 U	520 U	510 U	520 U	490 U	60 J	500 U
Acenaphthylene	390 U	520 U	510 U	27 J	490 U	550 U	500 U
2,6-Dinitrotoluene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
3-Nitroaniline	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
Acenaphthene	390 U	520 U	510 U	520 U	44 J	550 U	500 U
2,4-Dinitrophenol	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
4-Nitrophenol	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
Dibenzofuran	390 U	520 U	510 U	520 U	490 U	550 U	500 U
2,4-Dinitrotoluene	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Diethylphthalate	21 J	33 J	27 J	32 J	40 J	550 U	500 U
4-Chlorophenyl-phenylether	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Fluorene	390 U	520 U	510 U	520 U	36 J	550 U	500 U
4-Nitroaniline	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
4,6-Dinitro-2-methylphenol	980 U	1300 U	1300 U	1300 U	1200 U	1400 U	1200 U
N-Nitrosodiphenylamine	390 U	520 U	510 U	520 U	490 U	550 U	500 U
4-Bromophenyl-phenylether	390 U	520 U	510 U	520 U	490 U	550 U	500 U
Hexachlorobenzene	390 U	520 U	510 U	520 U	490 U	550 U	500 U

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

SEMIVOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER:	FF-R76		FF-R81		FF-R82		FF-R83		FF-R85		FF-R86		FF-R87	
Pentachlorophenol	980	U	1300	U	1300	U	1300	U	1200	U	1400	U	1200	U
Phenanthrene	27	J	290	J	170	J	420	J	640		100	J	500	U
Anthracene	390	U	44	J	34	J	77	J	80	J	550	U	500	U
Carbazole	390	U	50	J	37	J	93	J	98	J	550	U	500	U
Di-n-butylphthalate	20	J	41	J	30	J	150	J	28	J	33	J	500	U
Fluoranthene	390	U	620		470	J	1200		1500		220	J	500	U
Pyrene	390	U	510	J	410	J	1000		1600		210	J	500	U
Butylbenzylphthalate	390	U	29	J	510	U	67	J	490	U	550	U	500	U
3,3'-Dichlorobenzidine	390	U	520	U	510	U	520	U	490	U	550	U	500	U
Benzo(a)anthracene	390	U	220	J	190	J	580		640		110	J	500	U
Chrysene	390	U	470	J	410	J	1100		1000		170	J	500	U
bis(2-Ethylhexyl)phthalate	390	U	600	U	510	U	710	B	490	U	550	U	500	U
Di-n-octylphthalate	390	U	520	U	510	U	520	U	26	J	36	J	500	U
Benzo(b)fluoranthene	390	U	380	J	340	J	1400		810		140	J	500	U
Benzo(k)fluoranthene	20	J	300	J	250	J	1000		1100		120	J	500	U
Benzo(a)pyrene	390	U	310	J	250	J	840		840		130	J	500	U
Indeno(1,2,3-cd)pyrene	390	U	360	J	320	J	1400		1100		130	J	500	U
Dibenz(a,h)anthracene	390	U	520	U	84	J	520	U	310	J	41	J	500	U
Benzo(g,h,i)perylene	390	U	420	J	320	J	1500		1500		180	J	500	U
Sample wt (g):	30.0		30.0		30.0		30.0		30.0		30.0		30.0	
%Moisture:	15		36		35		36		33		40		34	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0		1.0		1.0	
Level:	Low		Low		Low		Low		Low		Low		Low	
Number of TIC's:	30		30		30		30		30		30		30	

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

SEMIVOLATILES	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R91	FF-R92					
Phenol	460 U	500 U					
bis(2-Chloroethyl)ether	460 U	500 U					
2-Chlorophenol	460 U	500 U					
1,3-Dichlorobenzene	460 U	500 U					
1,4-Dichlorobenzene	460 U	500 U					
1,2-Dichlorobenzene	460 U	500 U					
2-Methylphenol	460 U	500 U					
2,2'-Oxybis(1-chloropropane)	460 U	500 U					
4-Methylphenol	460 U	500 U					
N-Nitroso-di-n-propylamine	460 U	500 U					
Hexachloroethane	460 U	500 U					
Nitrobenzene	460 U	500 U					
Isophorone	460 U	500 U					
2-Nitrophenol	460 U	500 U					
2,4-Dimethylphenol	460 U	500 U					
bis(2-Chloroethoxy)methane	460 U	500 U					
2,4-Dichlorophenol	460 U	500 U					
1,2,4-Trichlorobenzene	460 U	500 U					
Naphthalene	460 U	500 U					
4-Chloroaniline	460 U	500 U					
Hexachlorobutadiene	460 U	500 U					
4-Chloro-3-methylphenol	460 U	500 U					
2-Methylnaphthalene	460 U	500 U					
Hexachlorocyclopentadiene	460 U	500 U					
2,4,6-Trichlorophenol	460 U	500 U					
2,4,5-Trichlorophenol	1200 U	1200 U					
2-Chloronaphthalene	460 U	500 U					
2-Nitroaniline	1200 U	1200 U					
Dimethylphthalate	460 U	500 U					
Acenaphthylene	460 U	500 U					
2,6-Dinitrotoluene	460 U	500 U					
3-Nitroaniline	1200 U	1200 U					
Acenaphthene	460 U	500 U					
2,4-Dinitrophenol	1200 U	1200 U					
4-Nitrophenol	1200 U	1200 U					
Dibenzofuran	460 U	500 U					
2,4-Dinitrotoluene	460 U	500 U					
Diethylphthalate	460 U	41 J					
4-Chlorophenyl-phenylether	460 U	500 U					
Fluorene	460 U	500 U					
4-Nitroaniline	1200 U	1200 U					
4,6-Dinitro-2-methylphenol	1200 U	1200 U					
N-Nitrosodiphenylamine	460 U	500 U					
4-Bromophenyl-phenylether	460 U	500 U					
Hexachlorobenzene	460 U	500 U					

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Yue-Mei Liu

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

SEMIVOLATILES		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER:	FF-R91		FF-R92											
Pentachlorophenol	1200	U	1200	U										
Phenanthrene	460	U	200	J										
Anthracene	460	U	37	J										
Carbazole	460	U	500	U										
Di-n-butylphthalate	460	U	73	J										
Fluoranthene	460	U	120	J										
Pyrene	460	U	170	J										
Butylbenzylphthalate	460	U	500	U										
3,3'-Dichlorobenzidine	460	U	500	U										
Benzo(a)anthracene	460	U	59	J										
Chrysene	460	U	69	J										
bis(2-Ethylhexyl)phthalate	460	U	500	U										
Di-n-octylphthalate	460	U	29	J										
Benzo(b)fluoranthene	460	U	38	J										
Benzo(k)fluoranthene	460	U	47	J										
Benzo(a)pyrene	460	U	51	J										
Indeno(1,2,3-cd)pyrene	460	U	30	J										
Dibenz(a,h)anthracene	460	U	500	U										
Benzo(g,h,i)perylene	460	U	42	J										
Sample wt (g):	30.0		30.0											
%Moisture:	29		34											
Dilution Factor:	1.0		1.0											
Level:	Low		Low											
Number of TIC's:	30		30											

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Mike Fertitta

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

PESTICIDES/PCBs		FLAG		FLAG		FLAG		FLAG		FLAG		FLAG
EPA SAMPLE NUMBER:	FF-R76		FF-R76DL		FF-R81		FF-R82		FF-R83		FF-R83DL		FF-R85	
alpha-BHC	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
beta-BHC	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
delta-BHC	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
gamma-BHC (lindane)	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
Heptachlor	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
Aldrin	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
Heptachlor epoxide	20	U	200	U*	21	U	21	U	26	U	260	U*	20	U
Endosulfan I	9.4	J	200	U*	21	U	21	U	26	U	260	U*	20	U
Dieldrin	39	U	390	U*	41	U	41	U	52	U	520	U*	39	U
4,4'-DDE	39	U	390	U*	41	U	41	U	52	U	520	U*	39	U
Endrin	1200	*	4500	U	200	U	190	U	1200	U	2300	*	39	U
Endosulfan II	130	*	390	U	41	U	41	U	52	U*	520	U	39	U
4,4'-DDD	39	U*	390	U	41	U	41	U	2.4	J	520	U*	39	U
Endosulfan sulfate	39	U*	390	U	41	U	41	U	52	U*	520	U	39	U
4,4'-DDT	39	U*	390	UJv	41	UJv	41	UJv	52	U*	520	UJv	39	U
Methoxychlor	200	U*	2000	U	210	U	210	U	260	U*	2600	U	200	U
Endrin ketone	280	*	1700	UJv	68	U	69	U	560	*	800	UJv	39	U
Endrin aldehyde	39	U*	390	U	41	U	41	U	52	U*	520	U	39	U
alpha-Chlordane	20	U	3.6	*	21	U	21	U	26	U	260	U*	20	U
gamma-Chlordane	100	U	130	*	21	U	21	U	47	U	59	*	20	U
Toxaphene	2000	U	20000	U*	2100	U	2100	U	2600	U	26000	U*	2000	U
Aroclor-1016	390	U	3900	U*	410	U	410	U	520	U	5200	U*	390	U
Aroclor-1221	790	U	7900	U*	840	U	820	U	1000	U	10000	U*	800	U
Aroclor-1232	390	U	3900	U*	410	U	410	U	520	U	5200	U*	390	U
Aroclor-1242	390	U	3900	U*	410	U	410	U	520	U	5200	U*	390	U
Aroclor-1248	390	U	3900	U*	410	U	410	U	520	U	5200	U*	390	U
Aroclor-1254	390	U	3900	U*	410	U	410	U	520	U	5200	U*	390	U
Aroclor-1260	18000	*	85000	J	2800	J	3000	J	21000	*	35000	J	420	J
Sample wt (g):	30.0		30.0		30.0		30.0		30.0		30.0		30.0	
%Moisture:	15		15		36		35		36		36		33	
Dilution Factor:	10.0		100.0		8.0		8.0		10.0		100.0		8.0	

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

ORGANIC DATA SUMMARY

Case No.: 25969 SDG: FFR76 Reviewer: Mike Fertitta

Laboratory: CLAYTN Matrix: SOIL Units: ug/Kg

PESTICIDES/PCBs	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG	FLAG
EPA SAMPLE NUMBER:	FF-R86	FF-R87	FF-R91	FF-R92			
alpha-BHC	23 U	2.6 U	2.4 U	2.6 U			
beta-BHC	23 U	2.6 U	2.4 U	2.6 U			
delta-BHC	23 U	2.6 U	2.4 U	2.6 U			
gamma-BHC (lindane)	23 U	2.6 U	2.4 U	2.6 U			
Heptachlor	23 U	2.6 U	2.4 U	2.6 U			
Aldrin	23 U	2.6 U	2.4 U	2.6 U			
Heptachlor epoxide	23 U	2.6 U	2.4 U	2.6 U			
Endosulfan I	23 U	2.6 U	2.4 U	2.6 U			
Dieldrin	44 U	5.0 U	4.6 U	5.0 U			
4,4'-DDE	12 J	18 J	4.6 U	1.6 J			
Endrin	44 U	20 U	4.6 U	5.0 U			
Endosulfan II	44 U	5.0 U	4.6 U	5.0 U			
4,4'-DDD	44 U	5.0 U	4.6 U	5.0 U			
Endosulfan sulfate	44 U	5.0 U	4.6 U	5.0 U			
4,4'-DDT	44 U	5.0 UJv	4.6 U	5.0 U			
Methoxychlor	230 U	26 U	24 U	26 U			
Endrin ketone	44 U	6.9 U	4.6 U	5.0 U			
Endrin aldehyde	44 U	5.0 U	4.6 U	5.0 U			
alpha-Chlordane	23 U	2.6 U	2.4 U	2.6 U			
gamma-Chlordane	23 U	2.6 U	2.4 U	2.6 U			
Toxaphene	2300 U	260 U	240 U	260 U			
Aroclor-1016	440 U	50 U	46 U	50 U			
Aroclor-1221	890 U	100 U	94 U	100 U			
Aroclor-1232	440 U	50 U	46 U	50 U			
Aroclor-1242	440 U	50 U	46 U	50 U			
Aroclor-1248	440 U	50 U	46 U	50 U			
Aroclor-1254	440 U	50 U	46 U	50 U			
Aroclor-1260	730 J	340 J	46 U	33 J			
Sample wt (g):	30.0	30.0	30.0	30.0			
%Moisture:	40	34	29	34			
Dilution Factor:	8.0	1.0	1.0	1.0			

Note: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 25969 SDG No. FFR76 SDG Nos. To Follow _____ SAS No. _____ Date Rec 02-23-98

EPA Lab ID: CLAYTN

Lab Location: 22345 Roethal Drive, Nori, MI 48375

Region: 6 Audit No.: 25969/FFR76

Re_Submitted CSF? Yes _____ No X

Box No(s): 1

COMMENTS:

3 Page number 341 was used twice and page number 342 was missing. The reviewer changed the second page 341 to 342.

8,13 The airbill number listed in the SDG Narrative did not agree with the number recorded on the Form DC-1 or the original airbill submitted. The laboratory was contacted for resolution.

Over for additional comments.

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	X		
2. Intact upon receipt?	X		
FORM DC-2			
3. Numbering scheme accurate?	X		
4. Are enclosed documents listed?	X		
5. Are listed documents enclosed?	X		
FORM DC-1			
6. Present?	X		
7. Complete?	X		
8. Accurate?	X		
CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?	X		
10. Dated?	X		
TRAFFIC REPORT(s) PACKING LIST(s)			
11. Signed?	X		
12. Dated?	X		
AIRBILLS/AIRBILL STICKER			
13. Present?	X		
14. Signed?	X		
15. Dated?	X		
SAMPLE TAGS			
16. Does DC-1 list tags as being included?	X		
17. Present?	X		
OTHER DOCUMENTS			
18. Complete?	X		
19. Legible?	X		
20. Original?		X	
20a.If "NO", does the copy indicate where original documents are located?		X	

Audited by: [signature] Yue-Mei Liu/ESAT Data Reviewer Date 03-04-98

Audited by: _____ _____ Date _____

Audited by: _____ _____ Date _____

Signature Printed Name/Title

TO BE COMPLETED BY CEAT

Date Recvd by CEAT: _____ Date Entered: _____ Date Reviewed: _____

Entered by: _____ _____

Reviewed by: _____ _____

Signature Printed Name/Title

In Reference To
Case 25969 SDG FFR76
ESAT File No. O-1886

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call:	March 2, 1998
Laboratory Name:	CLAYTN
Lab Contact:	Kelly Kolb
Region:	6
Regional Contact:	Michael J. Fertitta - ESAT
Call initiated by:	_____Laboratory ___X___Region

In reference to data for the Pest/PCB fraction:

Summary of Questions/Issues:

The laboratory did not submit GC/MS confirmation documents for AR1260 in sample FF-R81, although the reviewer calculated sufficient concentration.

Resolution:

Ms. Kolb will ask the Pest/PCB analyst to verify whether confirmation was performed and will call back.

Michael J. Fertitta
Signature

03/02/98
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) ESAT Copy

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

FAX Record Log

Date of FAX:	March 5, 1998
Laboratory Name:	CLAYTN
Lab Contact:	Kelly Kolb
Region:	6
Regional Contact:	Mahmoud El-Feky - EPA
ESAT Reviewer:	Michael J. Fertitta - ESAT
FAX initiated by:	_____Laboratory ___X___Region

In reference to data for the following fractions:

CSF Deliverables Pest/PCB

Summary of Questions/Issues:

A. CSF Deliverables

The airbill number mentioned in the SDG narrative (#2423938635, page 1a) does not agree with the number listed on the original airbill (#2423938436, page 1735) or the number on Forms DC-1 (pages 1749-1750). Please clarify.

B. Pest/PCB

1. As discussed by phone, GC/MS confirmation documents were not submitted for AR1260 in sample FF-R81, although the reviewer calculated sufficient concentration. Thank you for your prompt FAX containing the documents in question. At this time, please submit these original pages 1040A and 1040B, but please also resubmit the Form 1 for sample FF-R81 (page 1029) with a "C" flag added to the AR1260 result.

2. Dilutions did not seem to be necessary for samples FF-R85 and FF-R86 based on the quantitation reports. Please explain why these two samples were diluted.

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 (OLM03.0, p. B-22), except those containing only replacement pages. Custody seals are required for all CSF resubmission shipments.

Please respond to the above items. Region 6 resubmissions may be included with CCS response or sent separately within 7 days to:

Mr. Mahmoud El-Feky
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact me at (281) 983-2128.

M. El-Feky
Signature

03/05/98
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) ESAT Copy